NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE:\_\_\_\_\_\_\_\_\_\_\_\_ PER. \_\_\_\_

**VISCOSITY, ADHESION & COHESION WORKSHEET**

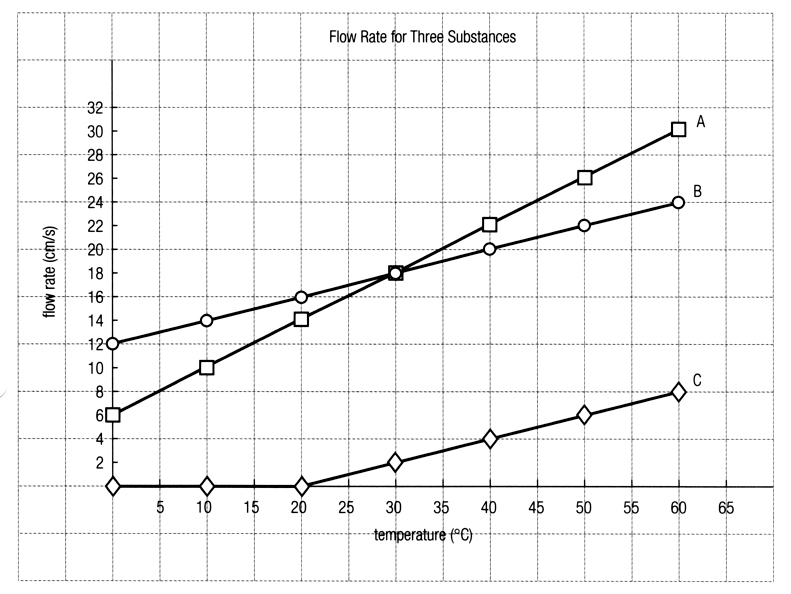
*Use your notes, book and/or internet to answer the following questions.*

|  |  |
| --- | --- |
| **Word Bank** | |
| Adhesion | Heated |
| Cohesion | Increases |
| Decreases | Slowly |
| Faster | Surface tension |
| Flow rate | Thicker |
| Fluid | Thinner |
| Greater | Viscosity |

1. A(n) is any substance that flows.
2. The thinness or thickness of a fluid is a property of fluids called
3. Water is than honey.
4. Molasses is than vegetable oil.
5. A thick fluid has a viscosity than a thin fluid.
6. A thicker fluid is more resistant to flow. Therefore, it flows more than a thinner fluid.
7. To compare the viscosity of fluids, you can measure their which is the speed at which fluid flows from one point to another.
8. Heating a liquid its viscosity.
9. Heating a gas its viscosity.
10. The property of fluids that make the particles hold together because they are attracted to each other is called .
11. The water particles at the surface attract each other in a way that makes the surface act like a skin. This effect is called .
12. The attraction between particles of a fluid and another substance so that the fluid clings to it is called

.

1. Data has been collected from an experiment investigating how temperature affects the viscosity of three substances.



Use the data in the graph above to answer the questions below.

* 1. Which substance is a solid at room temperature (about 20C)?
  2. At what temperature is the viscosity of substance A and substance B equal?
  3. When the temperature is 200C, which substance has the greatest flow rate?
  4. When the temperature is 100 C, which substance has the smallest flow rate?
  5. When the temperature is 500 C, which substance has the greatest flow rate?
  6. Suppose that substance A was at 650 C. Predict how fast substance A would flow.
  7. Predict at what temperature range substance A would become a solid.

1. Match the **Term** on the left with the best **Definition** on the right. Each Descriptor may be used only once.

|  |  |  |  |
| --- | --- | --- | --- |
| **Term** | | **Descriptor** | |
|  | Cohesion | A. | Resistance to flow |
|  | Adhesion | B. | The speed at which a fluid flows from one point to another |
|  | Viscosity | C. | Attraction or joining of two different objects or fluids to each other |
|  | Flow rate | D. | Strength with which the particles of an object or fluid attract each other |
|  | Surface tension | E. | Property of a liquid in which the surface of the liquid acts like a thin skin |

1. How is flow rate related to viscosity?
2. What is the effect of temperature on viscosity in liquids?
3. What is the difference between adhesion and cohesion?